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(71) Applicant: INTEGRATED TECHNOLOGIES OF AMERICA, INC. [US/US]; 610 11th Avenue South, Hopkins, MN 55343 (US).

(71)(72) Applicants and Inventors: MOONEY, David, M. [US/US]; 8743 Deerpath, Eden Prairie, MN 55344 (US). KIMLINGER, Joseph, A. [US/US]; 307 Warner Road, Willernie, MN 55090 (US). WOOD, David, E. [US/US]; 16851 Saddlewood Road, Minnetonka, MN 55345 (US).

(74) Agent: RAASCH, Kevin, W.; Schwegman, Lundberg & Woessner, 3500 IDS Center, 80 South Eighth Street, Minneapolis, MN 55402 (US). (81) Designated States: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TT, UA, UZ, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG).

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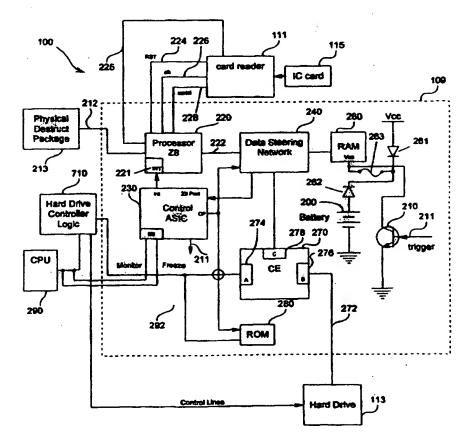
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(54) Title: PREBOOT PROTECTION FOR A DATA SECURITY SYSTEM

(57) Abstract

A secure computer controlling access to data storage devices via a card reader. A microprocessor-controlled card reader interface logically connected to the card reader and the central processing unit (CPU) of the computer reads and writes information from and to a card placed in the card reader and performs additional functions in response to commands received from the CPU. The card reader interface includes an encryption engine for encrypting data in a data storage device and a boot ROM containing verification program code executed during an initialization procedure. The verification program verifies that a valid user card has been placed in the card reader, reads one or more questions from the user card, asks the questions of the user and verifies the answers against the contents of the eard. If authorization is verified, the card reader interface permits the user to access the encrypted data. Otherwise, the user is denied access to the data by one or more of the following methods: freezing the system bus, and requiring the user to reset the computer and re-enter the verification program; logically destroying the data in the data storage devices; and physically destroying the data storage devices.



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A. CLASSIFICATION OF SUBJECT MAITER IPC 6 G06F1/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC 6 G06F Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practical, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category ' Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. X WD, A, 93 24906 (INTEGRATED TECHNOLOGIES OF 9,11,14, AMERICA) 9 December 1993 see the whole document Y 1,8,10, 16 & US,A,5 327 497 (MOONEY ET AL) 5 July 1994 cited in the application Y GB,A,2 181 281 (ISOLATION SYSTEMS) 15 1,10 April 1987 see abstract; figures 1-3 see page 1, line 59 - line 94 see page 2, line 5 - page 3, line 35 13 -/--X Further documents are listed in the continuation of box C. X Patent family members are listed in annex. Special categories of cited documents: "T" later document published after the international filing date or priority date and not in conflict with the application but clad to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filling date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citition or other special reason (as specified) "Y" document of particular relevance; the claimed invention carried be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person stilled in the art. "O" document referring to an oral disclosure, use, exhibition or *P" document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 29 November 1995 2 9. 12. 95 Name and mailing address of the ISA Authorized officer European Patent Office, P.B. 5818 Patentiaan 2 NL - 2280 HV Rujswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax (+31-70) 340-3016 Powell. D

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